

TDM Marketing
Information and Encouragement Programs

TDM Encyclopedia
Victoria Transport Policy Institute

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This chapter describes TDM marketing programs and strategies, which investigate the types of transportation services people want, identify barriers to alternative modes, and promote use of efficient transport options.

“Information is as powerful as infrastructure.”

Description

Marketing involves determining consumer needs and preferences, creating appropriate products, providing useful information about products to consumers, and promoting their use. Public knowledge and attitudes have a major effect on travel behavior, so marketing is an important component of TDM implementation.

Marketing is more than simply advertising to promote a product or activity. It is an ongoing dialogue between producers and consumers. It involves [Change Management](#), that is an effort to change the way problems are defined and solutions evaluated. The most effective TDM Marketing programs involve a variety of partners within a community, including public officials, community organizations and individuals who support transportation alternatives.

Below are specific TDM marketing activities:

- [Survey](#) users and potential users of alternative modes to determine preferences, knowledge, barriers and opportunities for changing travel behavior and providing TDM services.
 - Targeted, personalized marketing campaigns, which identify consumers who are most able and willing to change their travel patterns and providing them with suitable incentives to try alternatives.
 - Educate public officials, businesses about TDM strategies they can implement.
 - Promote benefits and changing public attitudes about alternative modes. For example, promote alternatives modes as enjoyable, [Healthy](#) and [Prestigious](#).
 - Produce a [Multi-Modal Access Guide](#) that provides concise information on how to access a particular destination by alternative modes.
 - Improve *wayfinding* (guidance for navigating around an area and through a transportation system), particularly for use of alternative modes (Gibson 2009).
 - Make alternative modes more [Affordable](#), with appropriate [Prices](#) and discounts.
 - Identify and overcoming barriers to the use of alternative modes.
 - [Encourage Transit](#) ridership by making transit service convenient and attractive.
 - Provide travel training, which help people with disabilities and special needs learn to use public transportation services (Wolf-Branigin and Wolf-Branigin 2008).
 - Provide information that encourages people to compete to achieve travel change objectives, such as contests between individuals, businesses and communities (Cialdini 2001).

Given adequate resources, marketing programs can significantly increase use of alternative modes and reduce automobile travel, although there are limits to what marketing can accomplish by itself. Marketing cannot change every person or every trip, and can be counterproductive if alternative modes are inadequate. For example, advertising that encourages motorists to try transit will fail if transit service is inconvenient and unpleasant to use; travelers who try it will have a bad experience, give up, and tell their friends. Similarly, a commuter who tries cycling for the first time, but has no support, will be discouraged if they find it difficult and frightening, or have an accident or mechanical problems.

Effective marketing often requires delivering different messages to different types of people, with special emphasis on people who are most ready to change. For example, potential transit markets can be divided into people who wouldn't use it, might use it, sometimes use it, and often use it. It is generally unrealistic to shift somebody from the "wouldn't" into the "often" category, but a transit marketing campaign can provide messages and incentives to shift travelers one category at a time, so for example, people who currently would not ride transit are encouraged to consider it; people who are already considering it are given opportunities and incentives to try it occasionally; and people who currently use it occasionally are encouraged to use it more often.

Wouldn't => Might => Sometimes => Often

Travel patterns tend to experience regular *turnover* (also called *churning*) as people change income, jobs, homes, abilities, responsibilities and preferences. For example, during a particular year a portion of residents may naturally shift from automobile to public transit commuting, while others shift from public transit to driving, due to changes in their life conditions. Marketing programs should therefore target people when they are ready to change their travel patterns.

In most communities a portion of trips are responsive to TDM marketing. Consumer surveys indicate that a significant portion of travel is non-essential, and that a significant portion (typically 25-50%) of travelers would consider using travel alternatives and are interested in obtaining information about them. One

survey found that out of 43 respondents, 19 report that they drive more than they *need*, and 34 report that they drive more than they *want* (Handy, Weston and Mokhtarian, 2005). Mustel (2004) surveyed Vancouver, BC motorists to determine the types of travel changes they consider most feasible, and the factors that would motivate travel shifts. Given the right combination of information, services and encouragement, a portion of automobile trips can be shifted.

Cialdini (2001) identifies several factors that can be used to support behavior change:

- *Commitment and Consistency* - If people commit, orally or in writing, to an idea or goal, they are more likely to honor that commitment. Even if the original incentive or motivation is removed after they have already agreed, they will continue to honor the agreement.
- *Social Proof* - People will do things that they see other people are doing. For example, in one experiment, one or more confederates would look up into the sky; bystanders would then look up into the sky to see what they were seeing.
- *Authority* - People will tend to obey authority figures, even if they are asked to perform objectionable acts.
- *Liking* - People are easily persuaded by other people that they like.
- *Reciprocity* - People tend to return a favor.

TDM Marketing programs should generally be ongoing so they provide continual support and encouragement, and respond to future opportunities and changes in individual's travel needs and preferences. Travel patterns tend to reflect *churning* (continual turnover and change, sometimes in response to specific events such as changes in employment or home locations); for example, during a given year some people naturally shift from automobile to public transit, while others shift from public transit to automobile due to changes in their circumstances and preference. TDM Programs should take these natural changes into account, providing ongoing encouragement for shifts toward more efficient travel patterns.

Direct marketing programs, such as TravelSmart, are effective because they focus on the people who are ready to consider changing their travel habits, but need information and encouragement. People tend to develop established travel habits. As described by Goodwin (1997), "The traveller does not carefully and deliberately calculate anew each morning whether to go to work by car or by bus. Such deliberation is likely to occur only occasionally." TDM marketing programs can help overcome this inertia in travel habits. Programs that present alternatives in a positive way and convince people to try them may result in long-term changes.

Positive Statements

As much as possible, TDM Marketing should emphasize the potential benefits from more efficient transportation systems. For example, reduced driving and shifts to alternative modes can provide vehicle cost savings, reduced crash risk, and reduced stress to users. More walking and cycling provides health benefits. They also provide community benefits, such as reduced traffic congestion, increased safety, road and parking facility costs, and reduced pollution.

Transportation Demand Management is not a very good marketing term, particularly since the acronym (TDM) sounds like tedium. It reflects a planning and economic analysis perspective, but is not well understood by the general public. So what should we call what we do? The term *Mobility Management* is used in some regions, particularly in Europe, but for marketing purposes it is often best to emphasize the positive objectives, such as *Travel Options*, *Mobility Choices* and *Transportation Efficiency*.

People naturally tend to rationalize their current attitudes and behavior (Gilbert 2006); TDM Marketing requires that alternatives be presented as attractive and desirable, at least compared with alternatives. TDM Marketing should offer motorists many opportunities to try alternative modes, without requiring a major commitment. For example, a program might provide transit route information and a free transit pass to people who currently commute by automobile. Walking and cycling [Encouragement](#) programs often start with a short-term event, such as bike-to-work week. Once people try alternative modes and use them occasionally, marketing can encourage them to increase their use incrementally, for example, by [Ridesharing](#) twice a week, or using a bicycle for commuting and errands for a greater portion of the year.

Market research is an important part of effective marketing. This means using surveys and other market data to better understand consumer knowledge, needs, preferences, barriers and opportunities to change travel behavior (Cao and Mokhtarian, 2005). For example, Table 1 shows results from a survey of potential rideshare users (employees with regular commute schedules who currently drive more than 5 miles to work), indicating which incentives are most likely to cause them to shift to alternative modes. Such surveys need to be performed for specific demographic groups and geographic locations.

Table 1 Market Survey (proprietary source)

What Would Help Encourage You To Rideshare?	Portion of Respondents
Personalized help finding bus times and routes	2.9%
Bike parking	3.3%
On-site food or kitchen	4.1%
Lockers/showers	5.9%
More info about alternatives	5.9%
Personalized help forming ridesharing	6.1%
Priority parking for rideshare	6.2%
On-site services	8.1%
Payment in lieu of parking	15.6%
Other	16.3%
Transportation during breaks/lunch	16.3%
Employer provided car	17.9%
More frequent bus service at site	18.4%

Flexible work schedule to meet alternative schedule	20.2%
Guaranteed Ride Home	33.3%
Financial incentive	39.1%

Marketing tends to be most effective when it emphasizes positive benefits to participants from using alternative modes, including stress reductions and financial savings from reduced driving, and increased enjoyment and [Health](#) from active travel modes such as walking and cycling. Some studies show that many workers place a high value on having commute alternatives (Novaco and Collier, 1994).

Social Marketing

Social marketing refers to community-based programs to encourage more socially desirable behavior. Social marketing is effective at achieving behavior changes that people generally support but find difficult to make, such as actions that increase personal health or benefit neighbors. It helps people reconcile their actions with their beliefs, providing integrity and pride, as well as helping to solve specific personal and community problems.

There are many successful examples of social marketing, including increased use of seatbelts and child restraints, reduced excessive drinking, more balanced diets and reduced tobacco consumption. These involved a combination of education, persuasion and policy interventions that have changed the way people act.

Social marketing consists of these steps:

1. Identify market to focus on, which may be everybody in an area, or a particular segment of the population that is particularly significant or likely to change.
2. Identify barriers to the desired behavior.
3. Develop multi-faceted strategy.
4. Develop a pilot project to test the strategy.
5. Based on results of the pilot, implement a full-scale program.
6. [Evaluate](#) and improve the program.

Successful social marketing requires listening carefully to the audience through focus groups and surveys in order to understand their real attitudes and concerns. It identifies the costs of inaction and the benefits of change from users' perspective, and helps people overcome barriers to desirable change.

A typical social marketing campaign to support TDM might include the following actions:

- Identify travelers who are most likely to change. For example, a campaign might focus on commuters in a particular demographic and income category who work in a particular area.
- Investigate consumer travel attitudes and preferences, potential benefits from alternative travel options (financial savings, reduced stress, sociability and fun, healthy exercise, community benefits such as reduced air pollution), and barriers to change.
- Based on market surveys, develop programs that improve [Transportation Options](#) (such as better transit services, [Rideshare](#) services, improved walking conditions), provide incentives to users (such as [Commuter Financial Incentives](#)), and overcome barriers as perceived by users (such as stigma associated with the use of alternative modes).
- Identify key attitudes, such as interest in fitness or pride in helping others that can be highlighted. For example, if personal health and fitness is a key consumer attitude, a campaign might emphasize the health problems that result if people continue their sedentary travel habits, and the user benefits from more physically-active travel modes.
- Develop multi-faceted promotional materials, which may include press materials, media advertising, brochures, flyers, posters, and other strategies to convey messages. This can include information on:
 - What is available (walk, cycle, rideshare, transit, etc.).
 - Why alternatives are desirable (benefits to users and communities)
 - How to use alternatives (how to cycle, rideshare or ride transit).
 - Encouragement to try alternatives ("Try using transit tomorrow.").
 - How to obtain support and additional information (websites, telephone numbers, etc.).
 - Reinforcement and validation to users ("When you ride transit, you help make our community a better place to live.").
- Start with a small pilot, improve it based on experience and feedback from users, and then expand the program.
- Continually update the program based on participant feedback, and to keep it fresh, timely and interesting. Try new messages and promotional materials.

Resources:

- [Novartis Foundation Social Marketing](#) (www.foundation.novartis.com/social_marketing.htm)
- [Social Marketing.Com](#) (www.social-marketing.com)
- [Social Marketing Institute](#) (www.social-marketing.org)
- [Social Marketing Network](#) (www.hc-sc.gc.ca/hppb/socialmarketing)

How it is Implemented

TDM marketing is usually implemented by government agencies or non-profit organizations as part of a comprehensive [TDM Program](#) or [Commute Trip Reduction](#) program. The Way-to-Go, Seattle! program's *Replicability Package* (2003) provides detailed information on how to create and evaluate a program

that encourages residents to reduce their automobile travel and use alternative modes.

Travel Impacts

Marketing can improve the effectiveness of most individual TDM programs and strategies. A survey of commuters found that exposure to commute trip reduction program information was the single most important factor contributing to mode shifting (Weber, Nice, Lovrich, 2000). Hendricks and Joshi (2004) identified specific factors that affect CTR program effectiveness. They found that the degree of management support and the presence of an Employee Transportation Coordinator is important if a worksite is located outside a major business district, but are less critical in a CBC. Given adequate resources, marketing programs can often increase use of alternative modes by 10-25% and reduce automobile use by 5-15% (see examples described later in this chapter). One study estimates that marketing increases the effectiveness of other TDM strategies by up to 3% (Shadoff, 1996). Modarres (1993) found that the provision of information on alternative travel modes by employers was one of the most important factors contributing to mode shifting.

Based on a detailed review of research, Spears, Boarnet and Handy (2011) conclude that well-managed voluntary travel behavior change programs typically reduce participant's vehicle travel by 5% to 8%. Their effectiveness at a city- or region-wide level is dependent on participation levels and spillover effects. Spillover may occur when non-participants learn of programs through media coverage or contact with participants.

The most effective marketing programs promote a variety of travel options rather than just one mode (such as ridesharing or public transit), since this allows consumers to choose the option that best suits their needs. For example, about half of the trips reduced by the TravelSmart programs shifted to walking, with smaller shifts to cycling, ridesharing and public transit (www.travelsmart.vic.gov.au). Individual mode shifts appear small, typically consisting of just few percentage points, but their total impacts are significant. The TravelSmart program found that marketing programs can reduce automobile travel by 6-14%, which is comparable in magnitude to much more expensive infrastructure improvement programs to encourage use of alternative modes. Fujii and Taniguchi (2006) found even larger travel reductions from "travel feedback programs" in Japan, with 50% increases in transit travel and 18% reductions in automobile travel among affected populations. Taylor (2007) discusses ways to evaluate travel behavior change programs, including used of instruments to track travel activity and model impacts.

Table 2 Travel Impact Summary

Objective	Rating	Comments
Reduces total traffic.	2	Tends to increase TDM effectiveness.
Reduces peak period traffic.	2	"
Shifts peak to off-peak periods.	2	"
Shifts automobile travel to alternative modes.	2	"
Improves access, reduces the need for travel.	2	"
Increased ridesharing.	2	"
Increased public transit.	2	"
Increased cycling.	2	"
Increased walking.	2	"
Increased Telework.	2	"
Reduced freight traffic.	2	"

Rating from 3 (very beneficial) to -3 (very harmful). A 0 indicates no impact or mixed impacts.

Benefits And Costs

Marketing provides a foundation for specific TDM policies, programs and strategies. Benefits include increased understanding and appreciation of TDM, increased public support for TDM strategies, and increased effectiveness of TDM efforts. Costs are primarily associated with program expenses. Actual benefits, costs and effectiveness vary depending on circumstances, program design and its effectiveness. A study by Ker (2003) found that marketing programs typically provide financial paybacks of 1.0 years or less (plus additional benefits to society), indicating an excellent return on investment.

Table 3 Benefit Summary

Objective	Rating	Comments
Congestion Reduction	2	Tends to increase TDM effectiveness.
Road & Parking Savings	2	"
Consumer Savings	2	"
Transport Choice	2	"
Road Safety	2	"
Environmental Protection	2	"
Efficient Land Use	2	"
Community Livability	2	"

Rating from 3 (very beneficial) to -3 (very harmful). A 0 indicates no impact or mixed impacts.

Equity Impacts

TDM marketing can help increase equity by increasing public knowledge and acceptance of transportation alternatives, and creating more effective TDM programs. This tends to benefit lower-income and transportation disadvantaged people by improving their mobility options, increasing access for non-drivers, and reducing the stigma often associated with alternative modes. Actual equity impacts vary depending on circumstances and program design.

Table 4 Equity Summary

Criteria	Rating	Comments
Treats everybody equally.	1	Generally benefits all groups.
Individuals bear the costs they impose.	-1	Requires subsidy.
Progressive with respect to income.	2	Can improve travel choice and reduce stigma associated with alternative modes.
Benefits transportation disadvantaged.	2	Can improve travel choice and reduce stigma associated

		with alternative modes.
Improves basic mobility.	0	No significant impact.

Rating from 3 (very beneficial) to -3 (very harmful). A 0 indicates no impact or mixed impacts.

Applications

Can be implemented as part of any TDM program.

Table 5 Application Summary

Geographic	Rating	Organization	Rating
Large urban region.	3	Federal government.	2
High-density, urban.	3	State/provincial government.	2
Medium-density, urban/suburban.	3	Regional government.	3
Town.	3	Municipal/local government.	3
Low-density, rural.	2	Business Associations/TMA.	3
Commercial center.	3	Individual business.	3
Residential neighborhood.	2	Developer.	2
Resort/recreation area.	3	Neighborhood association.	2
		Campus.	3

Ratings range from 0 (not appropriate) to 3 (very appropriate).

Category

TDM Program Support

Relationships With Other TDM Strategies

Effective marketing can increase the acceptability and effectiveness of most TDM strategies. It is often a component of [TDM Programs](#), [Commute Trip Reduction](#), [Transportation Management Associations](#), [Tourist Transport Management](#), [Campus Transport Management](#) and [Multi-Modal Access Guides](#). It is important to incorporate [Evaluation](#) into marketing efforts.

Wit and Humor

A farmer sitting on his front porch patiently watches a city slicker driving his sports car down the dirt road, throwing up a tail of dust. A little latter he watches the same car zoom pass the other direction, and later still the car passes by again, then screeches to a stop, engulfing car, yard and porch in a dust cloud. The driver, clearly exasperated at being lost, rolls down his window and yells to the farmer, "How do I get to Midville?"

The farmer thinks it over, and after the dust begins to settle finally replies, "I'm afraid ya can't get there from here."

Stakeholders

Virtually all stakeholders can have a role in marketing, including federal, state, provincial, regional and local agencies, Transportation Management Associations and business associations, individual businesses, and non-governmental organizations.

Barriers To Implementation

Marketing programs depend primarily on support and funding from agencies or businesses.

Best Practices

References and organizations listed below provide specific information on how to develop successful TDM marketing programs. IOLT, 2001 provides recommendations for providing transportation information through the Internet. Below are some general suggestions.

- Marketing programs should be developed in cooperation with all major stakeholders, including government agencies, business organizations, non-profit organizations, and participant groups.
- Marketing should provide a clear and consistent message.
- Marketing should emphasize positive benefits to participants, including increased enjoyment and health.
- Give people many chances to try alternative modes. For example, a marketing program may offer a free transit pass and appropriate route information to commuters who currently drive, so they have an opportunity to try transit.
- Marketing should offer useful information and resources (i.e., contacts for transit, rideshare, and carshare services, cycling safety tips, etc.).
- Focus on achievable, incremental changes. For example, rather than expecting commuters to shift completely from driving to alternative modes, encourage them to use alternative modes one or two days a week, and then to increase this over time.
- Marketing should only be implemented after TDM programs and services are operating effectively (it is counterproductive to promote TDM programs that give consumers an unsatisfactory experience, such as ineffective rideshare matching services).

- Potential users should be surveyed regularly to identify their needs and preferences, to evaluate the acceptance and effectiveness of marketing efforts, and to identify ways to improve marketing.
- All marketing materials should be reviewed by marketing specialists.
- Program [Evaluation](#) should be incorporated into marketing efforts.

Marketing Public Transit - Peter Everett, Professor, Penn State University

Marketers of public transit have made heroic efforts to stem ridership loss. Surprisingly, among all the marketing variables tried, the one least used is the market position of "status". Yet clear positioning is one of the prime ways a product or service can distinguish itself from the competition and motivate purchases.

Transit Suffers Poor Market Position. In the western world, much consumption is driven by status. Consumers commonly choose travel modes not only for function, but also for status. Yet since the 1960s, public transit has lost its position as a status mode of travel. Most of the failed attempts to recoup ridership on transit result from the confused and rejected market position into which public transit evolved over the past thirty years: transit in the U.S. today is a mode primarily for the transportation disadvantaged.

Repositioning Strategy. Efforts to reposition transit on the status continuum should be devoted to first attracting riders from social classes that others would like to emulate. This will require targeting the upscale suburban commuter, and providing premium and premium plus services.

With so many market segments in modern western cultures, repositioning efforts may ultimately entail multiple services, to give each segment status on parameters they feel appropriate. But two major points still stand:

- * it is often not possible to mix services for different market segments (e.g., the transportation disadvantaged and the upscale commuter)
- * status must be gleaned by consumers of a travel mode

Consumer Research Required. While the above points remain only premises and hypotheses, they adhere to respected psychological and marketing theory and practice. The first component of a real effort to reposition public transit would be consumer research. The second phase would be to radically redesign services on a route or segment of a selected city according to suggestions elicited from the consumer research.

There Are Many Barriers To These Repositioning Effort. They include: being labeled "elitist"; the economic and time commitments required to reposition transit; and the sheer dominance of the private automobile and plethora of low cost services provided for it.

Examples and Case Studies

DfT (2007) provides a comprehensive review of Personal Travel Planning case studies.

TravelWise Website (www.rmoc.on.ca/travelwise)

The Ottawa-Carleton Region established the TravelWise website to provide a one-stop, on-line source for complete information about walking, cycling, carpooling, public transit and more. TravelWise is home base for the Region's transportation demand management (TDM) program. The site will have an online Cycling Map on-line, information to help drivers reduce their costs and environmental impacts, a "TravelWise at Work" section will focus on workplace commuting, and "TravelWise at School" will be a local resource for International Walk to School Day. The TravelWise web site was produced by the Mobility Management Branch of the Region's Environment and Transportation Department.

TravelSmart, Perth (www.dpi.wa.gov.au/travelsmart)

TravelSmart is a community-based program that encourages people to use alternatives to travelling in their private car. It provides information, motivation and skills to help people choose alternatives to driving for personal travel. This is done through a programme called Individualised Marketing that reaches households through schools, businesses, local government and major destinations that run their own TravelSmart programs. TravelSmart also forms partnerships with environmental, health, cycling organizations and other organizations that have an interest in supporting travel alternatives.

The Perth Metropolitan Transport Strategy targets a 35% reduction in single-occupant-vehicle trips over the next 30 years. TravelSmart is a significant part of that strategy. TravelSmart research indicates that travellers have alternatives to driving for about 45% of all personal trips. Increasing the portion of these trips made by environmentally-friendly modes (walking, cycling, transit and tele-access) from 10% to 25% would achieve the Transport Strategy targets.

The Individualised Marketing program started with a pilot project in South Perth in 1997. The pilot project achieved a 10% reduction in car travel, a 16% increase in walking, a 21% increase in public transit use, and a 91% increase in cycling. These changes in travel behaviour were found to continue when measured one and two years later. Large-scale application of the program to the whole City of South Perth population (15,300 households) achieved a 14% reduction in car travel, 35% increase in walking, a 17% increase in transit use, and a 61% increase in cycling. Analysis of transit (bus) boardings for routes through the area showed a 21% increase in patronage.

This project was funded from capital funds under the concept of a "non-built" solution, based on [Least Cost](#) planning principles. It achieves an equal or better transportation benefits as an investment in physical infrastructure improvements. The Western Australian Department of Transport plans to expand the program to the entire city of Perth. If the objectives are realized, a 7% reduction in car travel across the whole region will be achieved at the cost of 2% of new main road construction for the same period. The project is estimated to have a benefit/cost ratio exceeding 13.

INSIDE TRACK; How to think people out of their vehicles

When 8,000 Perth households were helped to analyze their journeys, car use fell by 14 per cent with a shift to public transport and cycling.

Juliette Jowit, *Financial Times*, Sep 11, 2001; (www.travelsmart.transport.wa.gov.au)

It sounds like a transport dream. A cheap and effective scheme that could cut traffic by 10 per cent or more within months. But in Australia it is reality. And the idea is now on trial in 15 European countries.

The concept, called "individualised marketing", is simple. Households are contacted and offered advice about the journeys they make. If they are interested, they can get information and personalised timetables by post or a telephone hotline, or a home visit from a consultant who analyses the trips they make and suggests alternatives to the car.

Socialdata (www.socialdata.de), a German-based consultancy, claims to have developed the idea and spent 10 years looking for a guinea-pig before the government of Western Australia agreed to try it in Perth. An initial trial in 1997 of more than 800 households in South Perth showed a 10% drop in car journeys and vehicle miles, with a significant shift to public transport and cycling. Surveys a year later, and again 18 months after that, showed those gains were sustained.

Last year, Western Australia's Department for Planning and Infrastructure extended the project to 8,000 households in South Perth, with even better results. Car journeys and mileage fell 14 per cent and walking, cycling and use of public transport rose again. Use of local shops and services increased, air pollution fell and bus companies collected enough extra fares to recoup the cost within three years.

The south Perth trial cost AU\$1.3m - including new bus stops in the suburbs, printed material and surveys - and took three months. That compares with the UK government's 10-year transport plan, published last summer, which promised that in return for Pounds 180bn of private and public money, traffic would rise by 17% (admittedly, that is 5% less than what has been forecast without the plan.) Werner Brog, Social-data's founder and managing director, explained the theory behind the individualised marketing project.

Socialdata found that only 20% of journeys in Perth were by "green modes" - public transport, walking and cycling. However, in potentially 60% of journeys, people either did not need their cars or had an adequate alternative. Then Socialdata asked why people did not leave their cars behind more often and found a big gap between perception and the reality of public transport, walking and cycling. Typically, people thought their journey would take twice as long as it did and would cost a third more than the real fare. Half of motorists with a viable alternative did not know about the individualised marketing service.

"There's an alternative there," says Mr. Brog, pointing outside to buses, cycle lanes and Tube stations, "but not there," he says, jabbing at his head. "Transport planners want to fix that (pointing out of the window again) but we'd say it's much easier to fix the head."

It sounds almost too good to be true, which raises the question of why more towns, cities and regions are not pursuing the idea. As it stands, Western Australia plans to extend the scheme to all 600,000 residents of Perth, while elsewhere in the country, Brisbane is running a trial. Transport operators in Europe are talking to Socialdata about city-wide initiatives, says Mr. Brog. Socialdata is also exploring how individualised marketing can be used for energy, water, waste disposal and other applications.

However, before the transport scheme can spread, deep-rooted cultural and practical barriers will need to be overcome in many countries. Perhaps the biggest perceived threat, especially among politicians being asked to fund such projects, is a backlash from motorists who may see the scheme as "anti-car".

But in Australia, the Department for Planning and Infrastructure collected seven files of positive feedback and not one letter of complaint, insists Bruce James, the department's executive director metropolitan. The reason is that the approach is "not Stalinist" says Mr. Brog. People are not stopped from making journeys; they are never told to stop using their cars; and the project stresses how even tiny changes - say, one journey a week - can make a big difference.

"As soon as people hear what I do at a party they start saying 'Do you know how far I have to travel to work? Do you know I have to make interchange four times?' and so on," says Mr. Brog. "I say, if that's the case, use your car. But let's look at where else you can use public transport."

More subtly, another barrier is the long-standing assumption by transport engineers and planners that putting on more services and building new infrastructure is the solution to all problems. And the "boys with toys" approach has always chimed with the political attraction of opening new railways and roads. Individualised marketing can be complementary to investing in infrastructure, says Mr. Brog. But he hopes that, as more successful trials roll in, the balance will shift. Individualised marketing is more cost-effective, he believes. "We can better them hands down every time," he insists.

Doubters should know that Perth - designed for cars and a massive 100km by 80km in size - was a highly testing trial area, says Mr. Brog. "The saying is if it works in Perth it works everywhere in the

world," he says.

Brisbane Individualised Marketing Trial Gets Ten Percent Mode Shift

A Brisbane trial of the individualised marketing approach to promotion of walking, cycling and public transport has achieved a 10 percent reduction in private vehicle use with an approximate benefit to cost ratio of 20:1. The pilot used the IndiMark technique which has also been successfully applied in Perth both as a pilot and on a larger scale. There are five key phases in the IndiMark process: contact and segmentation, motivation, information, convincing and system experience and evaluation.

The Brisbane pilot was applied in the Grange District a group of suburbs in the north of the city with a population of around 26,000 (10,000 households). The suburbs are relatively well serviced by public transport with four rail stops on one line and 17 bus services spread over three main routes.

Following completion of a Before Travel Survey (including a survey of a control group), 412 households were contacted and asked if they would like to find out more information on how they could meet some of their travel needs via sustainable modes. Of those contacted 29 percent were uninterested, 47 percent were interested, 16 percent already used sustainable modes but were interested in receiving more information and 8 percent were existing users and were uninterested in further information.

The motivation phase involved detailed discussions with those who requested further information to identify problems they had and their travel needs. A service sheet allowed householders to select the exact information they wanted to receive.

In the information phase only the material specifically ordered was provided and all material was hand delivered. No general information, marketing or media campaigns on sustainable modes or their benefits were carried out in the pilot area at the same time as the trial was running.

The convincing phase involved home visits to discuss in detail the possible mode changes with those who had indicated the need for this level of support. In addition, a small number of households who were interested in swapping to a sustainable mode and did not already use public transport were given a one month system experience ticket for bus or rail.

The final phase, evaluation, involved another travel survey, again including the control group. The results indicated there had been a 10 percent reduction in vehicle trips, which roughly equates to one return trip per week per person by either public transport, walking or cycling.

The approximate benefit to cost ratio of 20:1 covered the benefits of reduced road congestion and car operating costs and, to a lesser extent, environmental externalities and public transport revenue. A number of other benefits would be particularly noticeable if IndiMark was implemented on a larger scale. A 10 percent reduction in congestion would reduce travel times by greater than 10 percent during peak times. There would be a reduced need for capital and maintenance expenditure on new and widened road corridors, as well as reduced private expenditure on fuel. Socially, a 10 percent reduction in crash rates and improvements in health and fitness due to exercise could be expected. Finally, environmentally, the reduced travel demand and consequent reduction in fuel use and exhaust pollutants would lead to improvements in local and regional air quality and reductions in greenhouse gas emissions and noise.

Sustainable Travel Towns (Sloman, et al., 2010)

Darlington, Peterborough and Worcester are typical medium-sized English towns. Following a competition, they were designated *Sustainable Travel Towns*, and so were able to invest £15 million in measures to reduce car use from 2004 to 2009. Baseline surveys in 2004 showed strong public support for more sustainable transport policies. Each town developed its own programme, including personal travel plans, walking and cycling promotion, public transport marketing, plus workplace and school travel plans.

Detailed travel surveys were performed in 2004 and 2008 and compared with data from comparable size towns from the National Travel Survey (NTS) and traffic counts from the National Road Traffic Estimates (NRTE). The analyses gave the following results:

- **Car use:** Car driver trips declined 9% per person, and car driver distance by 5%~7% for the three towns. This compares with a decline of about 1% in other medium-sized urban areas over the same period.
- **Bus use:** Bus trips per person grew substantially, by 10%~22%, compared with a national fall of 0.5% in medium-sized towns. The bus growth primarily occurred in Peterborough and Worcester, with a less positive trend in Darlington (in part due to the nature of competition between two operators in that town).
- **Cycling:** The number of cycle trips per person grew substantially in all three towns, by 26%~30%. Darlington (which was also a Cycling Demonstration Town) showed the greatest growth. Meanwhile, cycle trips declined in medium-sized towns elsewhere.
- **Walking:** The number of walking trips per person grew substantially, by 10%~13%, compared to a national decline in similar towns.
- While the reduction in the number of car trips per head was proportionately greatest for short trips, the biggest reduction in car distance travelled (hence traffic) was from medium-length and longer trips.
- There were indications of complex behaviour change, involving transfers between modes, changes of destinations and changes in trip numbers, not all of which can be fully analysed with the available data.
- The biggest reduction in car driver distance came from changes to leisure trips, then shopping and work-related business. This pattern was consistent with the relatively low emphasis on work-trips in the interventions chosen.
- The biggest falls in car driver mode share appear to have been among groups either at a point of change in their lives (at college, looking for work, or recently retired) or on a reduced income. There was a smaller per head reduction in car trips by those in full-time work, though this still constituted 40% of the total reduction.

Assessment of Success

Overall, the Smarter Choice Programmes in the towns contributed positively to objectives of supporting economic growth, reducing carbon emissions, increasing health, promoting equality of opportunity, and improving quality of life.

The programme costs averaged £11 annually per person per year or about 4 pence per car kilometre removed. Considering just congestion reduction

benefits, this indicates a 4.5 benefit/cost ratio. Including environmental, consumer-benefit and health effects using Department for Transport values would approximately double this benefit value. This provides sufficient evidence to justify substantial expansion of Smarter Choice Programmes.

[Green Marketing \(\[www.green-engage.co.uk/PaintingtheTownGreen.pdf\]\(http://www.green-engage.co.uk/PaintingtheTownGreen.pdf\)\)](http://www.green-engage.co.uk/PaintingtheTownGreen.pdf)

Marketing expert Stephen Hounsham offers the following recommendations for better marketing environmental actions to the general public.

- *Present environment as important not just for environment's sake but also for people's sake.* We should market the environment not just as a home for nice animals and plants but as the life support system that we all rely on, directly or indirectly, for food, water, air and shelter. Like a life support system in a hospital, the whole system is complex but fragile and vulnerable. It could break down if we don't keep the machinery in good running order. In other words, if we don't start looking after the environment, it might stop providing what we need. American President JF Kennedy's famous words "Ask not what America can do for you but what you can do for America", now need to be turned around to give: "Ask not what you are doing for the environment but what the environment is already doing for you." It's an approach that's essentially selfish but human beings are essentially selfish.
- *Move away from exhortation and a pedestal 'I know best' attitude to create real dialogue.* We should aim to take people on a shared journey on equal terms where both sides can learn.
- *Move from a modus operandi of information provision and rational argument to methods aimed at touching emotions, stimulating resonance, inspiring and creating desire.* In other words, we should move from a head-focused approach to one that's heart-focused. We need to recognize the potential of peripheral processing and hidden messages and focus on strong, visual images.
- *Aim to dispel the green image of negativity and doom and instead focus on positivity, optimism and human ingenuity.* We have to stop using shock or guilt tactics and avoid the temptation to exaggerate or go beyond science. The presumption must be that we will get through all this, that there is light at the end of the tunnel and that it is daylight, rather than the train hurtling towards us... Our motto should be to reassure and offer a way through.
- *Agree a vision of the future within the movement and make sure it isn't hopelessly unobtainable.* This has to be presented as an exciting new way of looking at things and marketed as something better. We should turn from defence to attack by moving away from 'defending' the environment through the reduction of damage and exploitation to 'attacking' on its behalf through promoting a positive vision of a better way of doing things. In this way we can be associated with solutions rather than problems. Our message must be: "Something better is on the way..."
- *Look for tangible, personal, close-to-home benefits from environmental actions for individuals.* Every environmental action should carry a personal incentive or reward and we should press for non-sustainable behaviours to carry price penalties or other disincentives. Create agency, the ability for people to understand a problem in their own way, decide for themselves to do something about it, make a real difference that's noticeable to them, and receive recognition for having done the right thing.
- *Create a sense of every little bit counts and deal convincingly with the "I can't do everything, so I'll do nothing" reaction by presenting a 'green on balance' framework for personal living.* Similarly we shouldn't chastise people for slipping into binges of 'bad ways' now and again.
- *Aim to develop brands – packages of environmentally friendly behaviours – that people will identify with, find attractive, see as a must-have, and above all like, just as they identify with a favourite brand in a supermarket.*
- *Focus campaigns and calls for behaviour change on what works for the people to be targeted.* This means recognising that different types of people have different values and motivations. We should therefore present environmentally friendly behaviours in ways that resonate with different personality groups. A campaign using the words 'green living' runs the risk of failing with some types of people. Following the principles of one model explaining human behaviour and motivations, we could present green behaviours as part of an Ethical Living tag to inner-directed, seeker-type personalities; as Smart Living to outer-directed, esteem-driven personalities; and as Safe Living to security-driven, home valuesbased personalities. We would need to take people as they are and on their own terms. In particular this might need a ban on all green language when communicating the need for Smart Living to esteem-driven people and use of only that green language that can be brought down to a local level when persuading security-driven people to adopt Safe Living.
- *Stop pretending environment is the only issue that should matter to people.* There are countless others too, many of them appearing to be more urgent and immediate to people. We need to work towards legitimising and broadening the appeal of green behaviours by wrapping up environment with the other four main families of visionary causes: prosperous, comfortable lives; peaceful, safe communities; social justice; and physical, mental and spiritual well being. Calls for Ethical Living, Smart Living and Safe Living could, in this way, ring multiple bells in people's minds rather than just one and end up being inarguable.
- *Work towards providing 'green living on a plate', as easy as booking a holiday: the equivalent of just making a phone call, handing over a credit card number and turning up on the day.* Every local authority should work towards providing a green demonstration house, in which green consumer choices are demonstrated in a practical, constructive and non-confrontational way with friendly staff on hand to offer commentary. A national one-stop telephone advisory service should be set up offering clear, easy-to-obtain practical advice on the best things to do for the environment and how to do them. Government should facilitate and encourage the establishment of 'green make-over' businesses and other private providers of, and crucially maintenance services for, green technology. There should be massive public investment in infrastructure and facilities for green living.
- *Similarly introduce 'green starter kit' advice by starting people off with easy actions with obvious paybacks or pleasant effects that fit into existing routines, before building up to the more difficult ones.* For example, this could begin with wildlife gardens, action on litter and planting or tending trees in the neighbourhood.
- *Aim to create 'bandwagon environmentalism' with a sense of joining in, or missing out if you don't.* This is essential if niche is to become mainstream and if we are to overcome the bystander effect where people don't act because they don't see others acting.
- *Court influential role models by building bridges with people who strike a chord with the public and working with them to demonstrate green values.* Similarly we should put forward 'green leaders' that people can look up to, identify with and more than anything like.
- *Make more effort to get environment into popular culture and probe opportunities for soft messaging.* In particular, build bridges with television executives responsible for drama, soaps, gameshows, comedy, reality TV and so on.

- *Widen the green movement further to embrace sociologists, anthropologists and psychologists who understand why people act and don't act.* We should draw in too advertising creatives able to 'sell' green as brands that work for people. The green movement relies too much on campaigners and not enough on people with these skills and knowledge areas.
- *Build bridges with faiths, focusing on shared principles and values, and 'sign up' religious leaders as public campaigners.* It is sobering for environmentalists used to communicating with limited audiences in limited ways with limited budgets to think that 1.7 million people participate in a Church of England service each month, that 1 million children are educated in Church of England schools and that the number of Church of England ministers is as high as 27,000. What could Friends of the Earth do with 27,000 dedicated campaigners?
- *Spend more time achieving change by working within and with established and realistic political processes, rather than outside and against.* This could mean more inside-track lobbying of decision makers rather than outside-track campaigns to harass them. Taken one step further, some might argue that relying on a separate political party to promote primarily green values may not be as effective as politicians with a strong green conscience moving into the mainstream parties and changing them from within.

Fremantle Travel Smart Program (www.dpi.wa.gov.au/travelsmart)

As a result of participating in the Western Australia Travel Smart program, Fremantle residents have reduced the number of car trips by 12% and the number of kilometres by 14%. They also increased the number of walking trips by 25%, cycling trips by 38%, and public transit trips by 13%.

TravelSmart, Portland (www.portlandonline.com/transportation/index.cfm?c=36370)

The City of Portland and TriMet have partnered to test a social marketing program to encourage the use of environmentally friendly travel modes. The TravelSmart program identifies individuals who want to change the way they travel, motivates them to think about their travel options and provides them with information about how to use transit, bike, walk or carpool for some of their trips. This approach has proven effective in many cities in Europe, Australia, and now in North America. The program was particularly successful with off-peak, discretionary trips. TravelSmart Portland was launched September 2002.

The before travel survey provided detailed information about travel behavior in the pilot area. There was a 65% response rate to a mail-back travel diary sent to 1,200 randomly selected households. The survey found that 64% of the trips in the target area are by people driving alone in their cars, 10% are walking, 5% are public transit, and 1% are bike trips. The remaining 19% are trips by passengers in cars. Many people are surprised that work trips make up such a small percentage of overall trips. Work trips and work related trips make up only 25% of all trips on the test pilot area. The large majority of people's trips are for shopping or for leisure activities-56%. This is a large number of trips that allow some flexibility in choosing to walk, bike or use transit.

Most interesting is trip distance. Of all trips from Multnomah Hillsdale, 12% are less than a half mile and 22% are less than one mile. Almost half of all trips (46%) are less than 3 miles. Car trips account for 39% of all trips under 3 miles and 15% under one mile. Most people are willing to walk a half-mile and many are willing to walk a mile. There is clearly a potential for shifting some of these car trips to walking or cycling.

The first 600 households responding to the baseline travel survey were included in the next phase, Individualized Marketing. These households were segmented based upon their responses. About 41% of SW Portlanders were interested in finding out more about transportation options. They received the information they needed, either by mail, telephone, or personal at-home visits. People already using environmentally friendly modes (26%) were given a small reward. The remaining 33% who didn't want to participate weren't contacted again. The segmentation closely matches that of households in the Perth project.

Table 6 Survey Results

	Households Total	Percentages
"Interested"	246	41%
"Already Using Alternatives"	156	26%
"Not Interested"	198	33%
HH Total	600	100%

This program resulted in 9% less car travel and an 8% increase in walking, cycling, and public transit. These figures represent a 12% reduction in vehicle miles traveled. Residents' changes in travel behavior have been shown to be sustained one year after the initial marketing efforts. Furthermore the data indicated that these results were achieved without affecting people's overall mobility in terms of their activities outside the home, travel time and number of trips per day.

When compared to other pilot projects using individualized marketing techniques in Europe and Australia, Portland has the highest percentage of trips by car. Despite the high rate of car travel in the Portland pilot, the reduction in car travel achieved is very similar to the other projects. The results support the use of TravelSmart, or individualized marketing, as an effective strategy to increase environmentally friendly modes of travel and reduce car travel.

Car Smart Communities (www.cityofseattle.net/carsmart)

Car Smart Communities encourages neighborhood projects that help residents use cars less often for errands and other personal and family trips. The program provides a variety of resources and incentives to encourage less automobile-dependent communities and lifestyles.

Seattle Way-To-Go Household Car Reduction Program (www.cityofseattle.net/waytogo)

Way to Go, Seattle is a new initiative to show people they can save money and make their communities more livable by making more conscious transportation choices, just as they do now with recycling and water conservation.

During summer 2001, 23 Seattle families completed a Way to Go pilot program to see if people could get along without their extra car for six weeks. The results are impressive. At least four families liked it so much that they're selling the car. Some families didn't need to participate in the program to be convinced. By determining the cost of owning their car on the City's website, they sold their extra car without even participating in the program!

"We can all take small steps to improve our transportation system," said Mayor Paul Schell. "These families have proven that we can make choices about how to get around and enjoy spending less time in our cars."

All the families in the study saved money, and most saved about \$64 per week. The all found they could get around on transit, walking, bicycling and taking taxis when needed for about \$21 a week, far less than the \$85 per week cost of an average second car. Most families tell us they will continue to take the bus or ride their bike, and

think about whether they need to drive to where they want to go.

"We hope more people will see they don't need that extra car," said Jamae Hoffman, project manager. "Families making smart decisions about transportation can cut down on vehicle trips, congestion, gasoline use and, of course, air pollution."

The best experience for Richard Kielbowitz and Linda Lawson of the Hawthorne Hills neighborhood was "watching the price of gas rise for other people". "When we heard reports of traffic jams, we counted our blessings that we were not caught up in them," they said. After participating in the program, Kielbowitz and Lawson sold their second car.

"Before I would have driven north for movies and shopping. Now, I head downtown on the bus," said Lori Goodwin of the Queen Anne neighborhood. "It was a fun experience. Same movies, same shopping, but it was wonderful not to have to deal with a huge parking lot."

Seattle's Strategic Planning Office paid the participating families \$85 per week for keeping a daily diary of their transportation activities and expenses during the six weeks they did not use their extra cars. Families were able to use the \$85, the national average cost of owning and operating a second car, for bus fares, joining a [Carsharing](#) service, or taxi when needed. Most families spent only about \$21 getting around without a car, saving an average of \$49 per week. As a result the 23 families made nearly 200 fewer car weekly trips totaling 1,260 miles of travel avoided.

The One-Less-Car Study was conducted in three rounds during 2000, 2001, and 2002, and engaged a total of 86 Seattle households in living with 'one-less-car' for either six or nine weeks while keeping detailed trip diaries showing their changing travel choices. During just these few short weeks of having 'one-less-car' to use, participant households made 8,003 fewer car trips which resulted in 41,463 fewer miles of neighborhood traffic and 30,198 pounds less of carbon dioxide emitted in our atmosphere. The families demonstrated that every type of household (such as those with and without children, etc.) in a variety of Seattle's neighborhoods can get where they need to go with 'one-less-car' while saving money and reducing stress.

The One-Less-Car Demonstration Study online *Replicability Package* (www.seattle.gov/waytogo/replicabilitypackage.htm) has all that is needed to conduct a study and start realizing the benefits of smarter transportation choices. The package contains the reports and products that will allow you to understand the rationale, methods, and outcomes of the "One-Less-Car" Project, including data analysis reports, all the worksheets and forms, and the Final Report with a step-by-step narrative of how Seattle did it. Over twenty cities and organizations have requested information on the study and how to start their own version.

The One-Less-Car Demonstration Study is part of the Way to Go, Seattle! family of programs aimed at helping Seattle to make the most of its transportation system and provide more transportation choices. It was designed to show people that they could save money and make their communities more livable by making more conscious transportation choices. Way to Go, Seattle! strives to find creative and innovative ways to reduce demand on the transportation network, a practice commonly referred to as Transportation Demand Management.

[Commuter Choice Marketing Program](http://www.commuterchoice.com) (www.commuterchoice.com)

Commuter Choice is a U.S. program that encourage employers to offer [Commute Trip Reduction](#) programs and [Incentives](#). It emphasizes the benefits of such programs to employers, employees and communities, and provides a variety of resources and support services. Like any other product, Commuter Choice relies on marketing initiatives to successfully reach its audience, including employers, commuters and others. The *Cooperative Commuter Choice Marketing Initiative* has developed a variety of materials and model advertisements to promote transportation alternatives.

- Community-wide marketing & education campaigns.
- Employer materials promoting commuting choices and benefits.
- Educational materials relating to the costs and benefits of commuting choices.
- Promotional events or programs to try commuting choices.
- Testimonials from satisfied customers.

[Go For Green](http://www.goforgreen.ca/home_e.html) (www.goforgreen.ca/home_e.html)

Go for Green is a national non-profit, charitable organization encouraging Canadians to pursue healthy, outdoor physical activities while being good environmental citizens. It encourages active transportation (walking and cycling). It sponsors the Commuter Challenge (see below) and school transport management programs. Go For Green provides information and materials, including newsletters, report, case studies and merchandize (logo shirts and hats).

[Commuter Challenge](http://www.commuterchallenge.ca) (www.commuterchallenge.ca)

The Commuter Challenge is a week-long, friendly competition between Canadian cities to see which can cut its air pollution the most by using active and/or sustainable modes of transport. Participants commitment to walk, jog, cycle or in-line skate (active transportation) and/or bus, carpool or telework during Environment Week (June 2-8, 2002). With this information, the Commuter Challenge team determines the amount of air pollution each participant reduced using an Environment Canada pollution model that calculates the number of kilograms of pollution produced by automobile commuting. The program emphasizes the following benefits of sustainable transportation.

- For Exercise! When you commute using active transportation, such as walking or cycling, you incorporate regular exercise into your daily life.
- For Your Health! Walking, in-line skating, jogging, and cycling exposes you to less pollution than the average car driver. Since drivers sit in traffic and are closer to car exhaust fumes, they are exposed to 10x more air pollution than the average pedestrian or cyclist.
- For Your Wallet! The Canadian Automobile Association reports that the average yearly cost to operate a car is over \$6,000! A bus pass for a year, however, costs about \$700, and a brand new bicycle may cost as little as \$200.
- For the Environment! The average car produces about 4 tonnes of air pollution each year. It takes about 130 trees to produce the amount of oxygen needed to combat the pollution that one car produces. Carbon dioxide is the single biggest pollutant that comes from automobiles, and carbon dioxide makes up the majority of greenhouse gases. Using fewer cars conserves our natural habitat and decreases the demand for new roads and parking lots.
- For Your Community! Using active and sustainable transportation makes your community safer, especially for children, youth, and seniors, by reducing the risk of vehicle-pedestrian accidents. People who use active and sustainable transportation also tend to support local businesses by shopping locally.
- To Reduce the Effects of Climate Change! Greenhouse gases, like carbon dioxide, get trapped in the planet's atmosphere, causing the Earth's temperature to rise. When you reduce greenhouse gas emissions by using active and sustainable transportation, you reduce the effects of climate change.

[Green Travel Incentives](http://www.travelsmart.vic.gov.au) (www.travelsmart.vic.gov.au)

The City of Darebin, Australia achieved a 17 percentage point increase in the number of staff sharing the drive to work over a three year period due to an incentive program. A 2004 survey found that 67% drove alone, compared to 84% in 2001. Staff have the opportunity to win a \$100 gift voucher to selected local businesses by logging their green travel trips to/from work on the Council's intranet site. To receive the voucher, staff must ensure that at least 20% of their travel to or from work is

classified as green travel. Since its introduction in late August 2003, the number of staff registered for the incentives has grown steadily. As of March 2004 the 130 registered staff had logged 6,278 trips which equated to 61,838 kilometres of green travel.

In addition, there have already been twenty six \$100 gift vouchers awarded to staff who have reached their points tally. Of those staff registered, 40% previously came to work in a single occupant vehicle all of the time. This proportion of participants have since completed 900 green travel trips and travelled 9,981 kilometres. Attached to the software that administers the incentive program is a car pool component where registered participants can search for travel partners in their nearby area. Staff not registered on the system can still view the carpool map to see who lives around their area and perhaps approach them informally.

Individualized Marketing in U.S. Cities (www.fta.dot.gov/initiatives_tech_assistance/technology/15791_ENG_HTML.htm)

The US Federal Transit Administration commissioned individualized marketing pilot projects in four US cities (Bellingham, Washington State; Sacramento city, California; Durham, North Carolina and Cleveland, Ohio) to test the effectiveness of individualised marketing in increasing public transport use. These cities were chosen because each exhibited different socio-demographic and cultural profiles, urban densities, population sizes, and public transport patronage trends. Public transport use within targeted communities increased between 14% to 43%. The number of walking and cycling trips also rose across each of the four target communities. When averaged across the four pilots, participants drove 4.5% less leading to an average 6.75% reduction in vehicle miles travelled. All results are based on comparison with a control population.

Table 7 Travel Changes From Marketing Program in U.S. Cities (FTA, 2006)

	Bellingham	Sacramento	Durham	Cleveland
Car (as driver)	-8%	-2%	-7%	-4%
Car (as passenger)	10%	1%	7%	5%
Walking	35%	15%	15%	13%
Cycling	13%	30%	25%	22%
Public Transit	14%	43%	35%	26%
Vehicle miles reduced	4%	4%	11%	8%

Washington State's Oil-Smart Campaign (www.wsdot.wa.gov/smarmoves)

The Smart Moves campaign is an annual event during the Month of April to promote alternative transportation in the Puget Sound region. It was initiated as Oil Smart in 1990, by a group of concerned citizens in the greater Seattle area.

Smart Moves has grown over the years to include a variety of community organizations and public agencies across Washington state. These groups join forces each year to create a new campaign theme, materials, and activities, all targeted to reduce single occupant vehicle travel by promoting the use of commute alternatives, like walking, bicycling, sharing a ride with other, riding the bus or working from home.

Marketing Effective Speed (Tranter and May, 2005)

Researchers Tranter and May (2005) examine the potential use of the effective speed concept to stimulate travel behaviour change. *Effective speed* reflects the total time devoted to a particular form of transport, including time actually devoted to travel and time devoted to earning money to pay for it. Effective speed analysis recognizes that faster but more costly modes, such as driving, are sometimes less time efficient overall. Effective speed could have useful applications in mobility management marketing to help people to reconsider the perceived advantages of automobile travel over slower but lower cost modes.

Table 8 indicates the estimated effective speed of various vehicles. This analysis indicates that public transit and cycling often have higher effective speeds than driving, particularly for more costly automobiles. Of course, actual costs will vary depending on individual factors, including actual income, costs, travel speeds and annual mileage.

Table 8 Effective Speed (Tranter and May 2005)

	Luxury Car	Sport Utility Vehicle	Average Car	Economy Car	Public Transit	Bicycle
Annualized costs (Aus\$)	\$14,161	\$17,367	\$9,753	\$5,857	\$966	\$500
Hours worked to pay costs*	644	790	444	266	44	23
Average travel speed (km/hr)	45	45	45	45	2	20
Hours of travel time	333	333	333	333	600	750
Support activity time (walking to vehicle, maintenance, etc.)	51	51	50	51	60	55
Total time	1,028	1,174	827	650	704	828
<i>Effective speed (km/hr)</i>	<i>14.6</i>	<i>12.8</i>	<i>18.1</i>	<i>23.1</i>	<i>21.3</i>	<i>18.1</i>

This table compares the estimated effective speed of various vehicles. Lower-speed modes, such as public transit and cycling, often have higher effective speeds than driving.

* Assumes \$40,100 annual income.

A coordinated and integrated communications campaign could optimise the promotion of the effective speed idea. This would involve in part, an extended media program over a period of several years in order to achieve changes in people's perceptions. Such a campaign would be part of a package encompassing social marketing and the expansion of travel behaviour change programs, leadership from politicians, and the presence of appropriate price signals.

Personal Travel Planning (ITP, 2007)

Personal Travel Planning (PTP) is an approach to delivering targeted information directly to travellers, to help them make sustainable travel choices. It seeks to overcome habitual use of the car, enabling more journeys to be made on foot, bike, bus, train or in shared cars. It can also seek to discourage unnecessary travel, through the provision of local or site-specific information. Within the UK, PTP is reported to reduce car driver trips by 11% (amongst the targeted population) and reduce the distance travelled by car by 12%. In terms of mode share, this represents a decrease in car driver trips of 4 percentage points, with walking the main beneficiary, having, on average, a reported increase of 3 percentage points. Follow-on benefits from these impacts can be expected in terms of wider community benefits, including the improved health of participants, a greater propensity to use local services, and improved local air quality

Vanpool Marketing Plan (York and David Fabricatore, 2003)

The Puget Sound region has some of the most successful vanpool programs in North America. Vanpooling represents about 2% of total commute trips and 7% of commute trips over 20 miles in length. Several factors contribute to this success: a [Commute Trip Reduction](#) law requires large employers in the region to help employees use alternative modes, vanpooling services are provided by transit agencies which insure quality and integrated services; and [HOV Priority](#) provides travel time savings for vanpools on some routes. Market research by York and Fabricatore (2001) indicates that this ridership could double or triple if supported by a variety of improvements and incentives:

- Increased flexibility, for example,
 - allow commuters to vanpool two or three days a week, rather than every day
 - allow unscheduled use as long as a van has extra space, such as a commuter who misses their regular 5:30 van may ride in a later van.
- Empty seat subsidies (temporarily paying a share of costs if a vanpool has less than six riders).
- Fare subsidies by employers or transit agencies (currently, transit commuting is often subsidized, but similar trips by vanpools are not).
- Targeted, direct [Marketing](#), for example, calling households in a particular suburb with an offer of one month's free vanpooling to encourage area commuters to try the service.
- [HOV Priority](#) measures, such as HOV lanes and preferred parking spaces.
- Premium service options, such as extra high-quality vans with bucket seats, workstations (fold-down tables with electric power so vanpoolers can work while commuting), and complementary newspapers and drinks for vanpoolers who pay an extra fee.
- [Pay-As-You-Drive Vehicle Insurance](#), [Parking Cash Out](#) and [Road Pricing](#), which give financial rewards to commuters who shift to ridesharing.
- Vanpools scheduled to transfer to transit service or other vanpools.
- Rent cars for carpools the same as vans are rented for vanpool use. This provides an option for groups of two to five who want to rideshare if none have a suitable vehicle, including vanpools that lose members.

Young People Less Interested in Driving

There is evidence that young urban people place less importance on personal vehicle ownership and use than in the past, and so may be more amenable to mobility management marketing programs. Computers and mobile telephones may be displacing automobiles as objects of status, entertainment and social interaction.

According to the *Wall Street Journal* (29 February 2008), 2007 survey of 1,700 young Japanese by the Nihon Keizai Shimbun, Japan's biggest business newspaper found that only 25% of Japanese men in their 20s wanted a car, down from 48% in 2000 (<http://s.wsj.net/article/SB120422248421700325.html>). The Japanese automobile manufacturers' association found that men 29 years old and younger made up 11% of Japanese drivers in 2005, roughly half the size of that group in 1993.

According to an article in the *Sacramento Bee* (4 March 2008), the portion of California 16-year-olds who obtained a drivers license declined from 22% in 1996 to 14% in 2006, and for 17-year-olds the rate declined from 40% to 33% during this period, and by age 18, almost half still had no license in 2006 (www.sacbee.com/101/story/757826.html). Similar trends are occurring nationwide.

Cycling Survey (Gatersløgen and Appleton, 2007)

A survey of British adults different stages in people's willingness to cycle for transportation, including precontemplation (they would not consider it), contemplation (they would consider it, but do not currently do it), prepared for action (they occasionally do it), action (they frequently do it) and maintenance (they always do it). This study suggests that different marketing strategies are suitable for different audiences: some people should be encouraged to consider cycling, while others should be encouraged to actually do it, or do it more frequently. The study indicates that it is important to portray cycling as a normal activity for all types of people (not just fit young men). It also recommends the expansion of school cycling programs to encourage children to develop the habit of cycling for transportation.

TravelSMART Communities Program (Ampt 2003)

A program in Melbourne, Australia, TravelSMART Communities, illustrates how the community development model and other principles of behavior change were implemented to offer individuals multiple tools to change their travel behavior.

The program involves the following activities:

- Project team gets to know the area – meeting people, understanding local demographics, personalized interactions with householders.
- Engaging households through direct contact, always a conversation to establish level of frustration with the car.
- Travel Blending – computer analyzed 7-day travel diary highlighting efficient travel and giving customized suggestions to achieve personal goals (save money, time, environment).
- Journey Plans – personalized plans for individuals who wanted to try a new mode but didn't know how (bike and walking paths, bus schedules and far information, etc.).
- Local Activity Guide – info on area activities.
- General information packet – leaflet for each of the main reasons people want to change.
- Loan a Bike – borrow a bike for 2 weeks to determine if they wanted to buy a bike.
- Children's activity pages – makes travel behavior a topic of conversation.
- Ideas tool – talking through new scenarios and getting commitment to try something new.
- Congratulations – some people thought they already traveled efficiently so all the general information leaflets were sent to them to pass out to friends and neighbors.

Travel Market Segmentation (PRR 2004)

A Portland, Oregon study examined real and perceived barriers and benefits to changing travel behavior for all types of trips. The focus groups reported that time and

ability to trip-chain influence travel mode choice; people will use transit if it is safe, fast reliable and cheap; alternative modes are seen as less comfortable and less safe, but some think it's worth it. The survey results indicated an emphasis on three general types of motivators: cost, convenience, and social. The survey identified 26 potential motivators. Responses were categorized by market segment, e.g. financial incentives appear to be most effectively targeted to younger, less-affluent people including students. Survey respondents ranked motivators that initially caused them to use alternative modes. Fifty percent or more of respondents listed the following motivators:

- Employer or school provided financial incentive for using alternative travel modes.
- Ability to work at home one day per week.
- Guaranteed ride home from work in emergencies.
- Transit passes sold at a reduced rate, such as \$50 per year.
- More express buses.
- Shelters at bus stops.
- Ability to use transit passes for discounts at local shops.

Specifically, motivators to use alternative travel modes or use them more often included:

- Parking price and convenience.
- Higher gas prices
- Traffic congestion.
- Reduced stress from not driving alone.
- Enjoyment of traveling with others.

Reducing Car Use by Morning Commuters (Pinnacle Research, 2004)

A research programme investigated factors that can influence commuting patterns to work or schools, including chauffeuring children to school. Our work on the latter led to a separate research programme trialing Walking School Bus networks in four schools. The trial resulted in over 10% of the schools' population becoming involved in walking school buses and generated significant interest in the concept of networks in New Zealand. There are now walking school bus networks in at least ten cities throughout New Zealand and the Energy Efficiency and Conservation Authority has released a "Walking School Bus Kit" based on the guidelines developed by Pinnacle Research.

This programme also designed and administered a sophisticated stated preference questionnaire to car drivers in Auckland and Wellington and Christchurch. We analysed the resultant database using standard statistical methods along with multinomial logit analysis. Recognising that each of these regions (Auckland, Wellington and Christchurch) is different, we have analysed each region separately, as well as developing a national model. We have estimated the marginal effect of these policy tools, both "carrots" and "sticks", on an individual's decision to travel by car:

- Implementing a \$5 or \$10 toll (\$2.50 and \$5 in Christchurch).
- Implementing a 10¢ or 30¢ per kilometre vehicle registration surcharge.
- a \$5 or \$10 surcharge on public car parking buildings (\$2.50 and \$5 in Christchurch)
- Implementing short term ($P < 120$) on-street parking within .5 or 1.5 kilometres of the work place.
- Increasing on-street parking charges to \$2.50 or \$5 per hour (\$1.25 and \$2.50 per hour in Christchurch).
- Improved frequency of passenger transport services, either in the "peak" periods or "off-peak".
- Improved / shortened trip times for passenger transport and high-occupancy vehicles.
- Reduced passenger transport fares by 25% or 50%.
- Improved routing of passenger transport services.
- Improved cycle lane availability along 50% or 100% of the route to work / place of study.

From the above information and the contextual data we collected, we have developed "profiles" of different mode users, identifying the characteristics of those car drivers most likely to switch to using passenger transport, being car passengers, car pooling or other modes (e.g. walking or cycling). We have also identified perceptual barriers to using passenger transport in particular and "concrete" barriers to mode switching generally. We also collected data on peoples' attitudes and ability to work a "compressed" work week and to "telecommute" (work from home) one or more days per week. We found 23% of respondents were receptive to these concepts. Our survey also gathered information about car drivers' attitudes towards their cars, passenger transport, ride sharing (car pooling), and cycling.

Building Community Support For Public Transit

The report, *Understanding How to Motivate Communities to Support and Ride Public Transportation* (TRB, 2008) identifies ways to enhance the public image and increase community support for public transportation. It examines the perceptions, misperceptions, and use of public transit, and the extent to which these affect support. It identifies methods used by other industries (comparable to public transportation) to enhance their public image and to motivate support for their products and services. It recommends appropriate communication strategies, campaigns, and platforms for motivating individuals to action in support of public transportation, as well as ways to execute those communication strategies, campaigns, and platforms.

Whatcom Smart Trips (www.whatcomsmartrips.org)

Whatcom Smart Trips is a partnership between local government, public agencies, employers, and schools to promote walking, bicycling, ridesharing and public transport that substitutes for automobile travel. The organization provides information and support services, such as a [Guaranteed Ride Home](#). Participants record their "smart trips" at the organization website, which qualifies them for discount cards and prizes.

Smart Home Location Choice Project (Fenton and Jensen 2006)

The *Home Location Choice Project* used Google advertising to direct people searching for homes in Townsville, Australia to a special website (www.movetotownsville.com) which offered incentives to participate in the research program. Participants received \$25 for participating in the initial survey and another \$25 if they completed a second survey.

Participants were randomly assigned to either a control group (68 participants), which were simply surveyed before and after they moved to Townsville, and an intervention group (65 participants) which were given detailed information about the financial, environmental and health costs of living in different Townsville neighborhoods. This travel cost information was also integrated into several email messages sent to the participants which emphasised the savings and benefits that result from a more accessible home location. These messages provided guidance to additional maps and other travel cost information, plus opportunities for participants to directly phone or email the project administrator for additional information about living in Townsville.

Three weeks after their intended arrival date all participants completed a telephone interview which collected information on their current home location; household composition and travel behaviours including travel destinations, trips per week and mode of transport. Interviewers were unaware of which individuals had been assigned to the control and intervention conditions.

Results indicate that households in the experimental group choose more accessible, multi-modal locations and as a result drive about 15% less or about 900 fewer annual motor vehicle kilometers. Households that intend to stay longer (more than 3 years) in their new home tended to reduce their mileage more than households that expected to stay a shorter period. The researchers conclude that information programs of this type can be a cost effective way to stimulate demand for more accessible, multi-modal locations.

Environment Canada's Clean Air Day

Clean Air Day (CAD) was proclaimed by the Government of Canada to increase public awareness and action on two key environmental priorities, clean air and climate change. It is part of Canadian Environment Week which was created to promote and to celebrate activities that care and nurture our environmental legacy.

Clean Air Day builds on a tradition of community activities that target environment, health and transportation issues during the months of May and June. In fact, the Day was declared by the Government of Canada in response to a request made by several of these community organizations. Clean Air Day, as part of Environment Week, is very much a grassroots event relying on strong partnerships with all sectors of society. Clean Air Day and Environment Week are about all of us, as individuals and as members of our communities, making choices that help create a cleaner, safer world for ourselves, our families and the next generation.

Vancouver TravelSmart Program (www.tc.gc.ca/Programs/Environment/utsp/travelsmart.htm)

TravelSmart is an innovative personal transportation marketing program that encourages people to change their personal travel behaviour and increase their use of more sustainable travel modes (i.e. public transit, ridesharing, bicycling and walking) through a combination of personalized information, incentives and rewards.

It was piloted in six neighbourhoods located in the inner, middle and outer rings of the Vancouver, British Columbia metropolitan region, each with varying degrees of access to transit and other travel options. A "before" survey was conducted to identify individuals interested in participating in the program and to establish baseline travel behaviour conditions. After the program was completed an "after" survey assessed *TravelSmart*-related behaviour changes. Control groups were used in both surveys to isolate the impact of any external factors.

The 13 month pilot project ended in November 2006 with more than 600 people participating through all of the stages in each of the six pilot communities. Program results indicate that use of more sustainable modes of transportation increased substantially with *TravelSmart* participants. Walking and public transit use increased by 9% and 12%, respectively, while car trips declined by 8%.

Smart Trips Welcome (www.portlandoregon.gov/transportation/43801)

With an average of 15% of the U.S. population moving each year, new residents represent a significant portion of urban dwellers. In response, Portland's Smart Trips program individualized marketing efforts designed to help new residents develop environmentally-friendly and active transportation habits. As a result, the city's new residents took 10% fewer drive-alone trips and the proportion of their trips taken by green and active methods increased by 14%. This comprehensive approach includes a strong evaluation design and targeted social marketing strategies.

Wayfinding Plan (IMAP 2007)

The Inner Melbourne Action Plan includes development of a consistent wayfinding signage system to help transportation system users see that the Inner Melbourne Region is accessible throughout by walking, cycling and public transport. Current wayfinding signage is fragmented and variable, and many inter-precinct walking routes are not signed for pedestrians. This project will a family of user-friendly wayfinding signs that show people the integrated "web" of sustainable transport links throughout the Region. This project:

- Identifies a hierarchy of signs that provide both regional and local wayfinding information in a consistent format across the Region.
- Identifies the regional and local pedestrian and public transport route system.
- Identifies regional and local signage locations.
- Develops a detailed signage plan, based on the research undertaken for 1-3 above, for a "demonstration project" within the Region, showing where each type of sign should be located within the demonstration project area.

Marketing Public Transit Oriented Housing To Students (Taniguchi, et al. 2014)

A study tested the effects of targeted communication University of Tsukuba, Japan, students who were in the process of changing their residential location. These students were randomly assigned to four groups: the first group was a control group; the second group received an information brochure about apartment flats typically used by students in Tsukuba city; the third group received a brochure identical to the one given to the second group, except that it also included information about the level of bus service for each flat; and the fourth group was provided with a leaflet that provided motivation for choosing Public Transit Oriented Residence (PTOR). After five months there was a significant difference between the groups: PTOR selection was twice as high for the third and fourth groups, which were given information and encouragement to choose transit-oriented housing, as for the control group. Additionally, the target groups' frequency of bus use from home or the university was significantly high compared with the control group.

Survey Indicates Declining Delight In Driving (Pew 2006)

A 2006 survey found a decline in the portion of motorists who like to drive or consider their vehicles special, and increased frustration with traffic problems. Although 69% of American drivers say they like to drive, this is down from 79% in a 1991 Gallup survey, and just 23% say they consider their car "something special -- more than just a way to get around," barely half of the 43% who felt this way in 1991. These results suggest that many motorists would consider changing mode for a portion of their travel, particularly if alternative modes can provide convenient and comfortable service under congested conditions.

In Motion (www.kingcounty.gov/transportation/kcdot/MetroTransit/InMotion.aspx)

In Motion is a sponsored by King County (Seattle, Washington) Metro Transit and local communities to encourage residents to use healthier travel options like the bus, carpooling, bicycling and walking. It provides information and community-based resources to help residents use efficient travel options, including the [In Motion Tool Kit: Helping More People Drive Less](#). The program and its impact have been well documented.

Clean Air Commute, Pollution Probe (www.pollutionprobe.org).

The Clean Air Campaign is a public education and awareness component of Pollution Probe's comprehensive Air Programme. Each June since 1993 Pollution Probe has held the campaign to bring the clean air message to hundreds of workplaces across the Greater Toronto Area (GTA). The campaign is Pollution Probe's most visible forum to inform the public and policy-makers about the human health risks associated with smog and to promote practical air quality solutions. The focus of the month-long campaign is to bring individuals to action against smog by promoting alternatives to driving alone. The main event of the Clean Air Campaign is the week-long Clean Air Commute.

Every year, Pollution Probe invites hundreds of workplaces in the Greater Toronto Area to participate in our annual Clean Air Commute. A record number of 145 workplaces and 8,000 employees helped to remove over 286 tonnes of pollutants from our atmosphere during days in June 2002. How? They simply left their cars at home for one week (unless they were carpooling) and took cleaner modes of transportation to and from work. Pollution Probe provides a variety of materials, including brochures and posters, to support the campaign.

Clean Air Commute is a week of friendly competition where participants learn about vehicle emissions, smog and related health issues in the spirit of a fun competition. Personal "diary cards" are distributed to individuals to fill out during the week indicating how they got to work. By filling out the distance in kilometres from their home to workplace on the diary cards, employees are able to calculate the actual weight of the major smog pollutants that they kept out of the air by not driving alone to work each day. The greenhouse gas CO₂ is also figured into the calculations. Following the event, these diary cards are used to calculate the workplaces percentage of participation and as entry forms for prize draws to reward the participants.

Wit and Humor

Two shoe salespeople were dispatched by their company to a remote village. In a few days the head office receives telegrams from each.

One reads "Let me return home – no one here wears shoes!"
The other reads "Send more inventory – no one here owns shoes!"

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